

In re: Mahajan *et al.*
Appl. No.: 09/236,995
Filed: January 26, 1999
Page 2 of 18

c) a nucleotide sequence that is antisense to the full-length sequence set forth in SEQ ID NO. 1.

2. (Amended) A chimeric nucleic acid sequence comprising a promoter capable of driving expression of a nucleic acid sequence in a plant cell operably linked to a nucleotide sequence of claim 1.

C1
3. (Amended) The chimeric nucleic acid sequence of claim 2, wherein the nucleotide sequence encodes a poly ADP-ribose polymerase having the amino acid sequence set forth in SEQ ID NO. 2.

CONF
4. (Amended) The chimeric nucleic acid sequence of claim 3, wherein said nucleotide sequence is the nucleotide sequence set forth in SEQ ID NO. 1.

5. (Amended) A vector comprising the chimeric nucleic acid sequence of claim 4.

6. (Amended) A plant cell transformed with the chimeric nucleic acid sequence of claim 4.

7. (Amended) A transformed plant comprising the chimeric nucleic acid sequence of claim 4.

8. (Amended) The chimeric nucleic acid sequence of claim 2, wherein the nucleotide sequence is antisense to the full-length sequence set forth in SEQ ID NO.1.

9. (Amended) A vector comprising the chimeric nucleic acid sequence of claim 8.

In re: Mahajan *et al.*
Appl. No.: 09/236,995
Filed: January 26, 1999
Page 3 of 18

11. (Amended) A transformed plant comprising the chimeric nucleic acid sequence of claim 8.

C2
12. (Amended) A transformed plant having incorporated into its genome a DNA molecule, said molecule comprising a promoter capable of driving expression of a nucleic acid sequence in a plant cell operably linked to a nucleotide sequence selected from the group consisting of:

- a) a nucleotide sequence encoding a poly ADP-ribose polymerase having the amino acid sequence set forth in SEQ ID NO. 2;
- b) the nucleotide sequence set forth in SEQ ID NO. 1; and
- c) a nucleotide sequence that is antisense to the full-length sequence set forth in SEQ ID NO. 1.

C3
15. (Amended) The transformed plant of claim 12, wherein the nucleotide sequence is antisense to the full-length sequence set forth in SEQ ID NO. 1.

C4
18. (Amended) The transformed plant of claim 12, wherein said plant is a monocot.

C5
21. (Amended) A method for modulating the metabolic state of a plant cell, said method comprising transforming said plant with a DNA construct, said construct comprising a promoter that drives expression in a plant cell operably linked with a nucleotide sequence selected from the group consisting of:

- a) a nucleotide sequence encoding a poly ADP-ribose polymerase having the amino acid sequence set forth in SEQ ID NO. 2;
- b) the nucleotide sequence set forth in SEQ ID NO. 1; and
- c) a nucleotide sequence that is antisense to the full-length sequence set forth in SEQ ID NO. 1.

Please enter the following new claims:

In re: Mahajan *et al.*
Appl. No.: 09/236,995
Filed: January 26, 1999
Page 4 of 18

--24. (New) An isolated DNA molecule comprising a nucleotide sequence having at least 90% sequence identity to SEQ ID NO. 1, wherein said nucleotide sequence encodes a polypeptide having poly ADP-ribose polymerase activity, said polypeptide comprising at least two functional zinc fingers.

25. (New) The isolated DNA molecule of claim 24, wherein said nucleotide sequence comprises the sequence set forth in SEQ ID NO. 5.

26. (New) A chimeric nucleic acid sequence comprising a promoter capable of driving expression of a nucleic acid sequence in a plant cell operably linked to a nucleotide sequence of claim 24.

27. (New) A vector comprising the chimeric nucleic acid sequence of claim 26.

28. (New) A plant cell transformed with the chimeric nucleic acid sequence of claim 26.

29. (New) A transformed plant comprising the chimeric nucleic acid sequence of claim 26.

30. (New) The transformed plant of claim 29, wherein said plant is a dicot.

31. (New) The transformed plant of claim 29, wherein said plant is a monocot.

32. (New) The transformed plant of claim 31, wherein said monocot is maize.

33. (New) A method for modulating the metabolic state of a plant cell, said method comprising transforming said plant with a DNA construct, said construct comprising a promoter that drives expression in a plant cell operably linked to a nucleotide sequence of claim 24.--